

In the Specification:

Please make the following changes in the indicated specification paragraphs, sections and headings:

Page 1, line 3, please delete this line in its entirety, i.e. delete "Prior Art".

Page 1, line 4, please insert the following heading and paragraph:

BACKGROUND OF THE INVENTION

The present invention relates to a method of making a stator for an electrical machine, and to an electrical machine including a stator made by the method.

Page 1, line 5 to line 19:

A stator and electric machine of the type on which the present invention is based according to the preamble to claim 1 are already known from Japanese patent application 9-103052. To manufacture this stator, first, individual sheet-metal lamina are stamped out and a particular number of these sheet-metal lamina are stacked one on top of another until the desired axial breadth of the core is achieved. These stacked sheet-metal lamina constitute the stator core, which has teeth and grooves arranged parallel to one another on one side in a manner that is customary for a stator. A pre-wound core winding is produced, for example, in an approximately planar form and is then inserted into the grooves of the for example essentially flat core. The subassembly comprised of the core

and core winding is then bent in a circular fashion so as to yield a hollow, cylindrical stator. After the circular bending of the subassembly comprised of the stator yoke and winding, the two ends are connected to each other by welding. The welded connection between the two ends is a multiply loaded joint whose specific embodiment cannot be gleaned from any known technical teaching in the prior art.

Page 1, line 21:

Summary Advantages of the Present Invention

Page 1, line 22, please insert the following paragraphs:

It is an object of the present invention to provide a method of making a stator according to the present invention, which includes providing an improved welding seam between two ends of the subassembly.

It is a further object of the present invention to provide an electric machine including a stator made by the method according to the invention for making the stator.

This object and others, which will be made more apparent hereinafter, are attained in method of making a stator of an electric machine, which comprises making individual generally strip-shaped laminas; stacking the individual laminas to form a stator core with a yoke having a yoke height, so that one side of the stator core is provided with grooves extending through the core; producing a subassembly by inserting a stator winding into the grooves of the stator core;

bending the subassembly in a circular fashion to produce a cylindrical cavity in which the grooves end and, in order to maintain the foregoing configuration with the cylindrical cavity, connecting at least two ends of the stator core to each other by means of a welding seam.

According to the invention the welding seam depth (T_s) is a function of the yoke height (H_{yoke}) and a tolerance value (ΔT_s) and is given by the following formula (I):

$$T_s = 0.5 \text{ mm} * (H_{yoke}/\text{mm} - 1) \pm \Delta T_s. \quad (\text{I}).$$

Page 1, line 23, to page 2, line 12:

The stator made by the method according to the present invention has
~~invention, with the characteristics of the main claim, has the advantage that by~~
specifying the welding seam depth as a function of the effective yoke height and
a tolerance value for the welding seam depth, a rule has been established that
permits sure, reliable control of the multiple parameters that influence ~~parameters on~~ the stator of an electric machine, on the one hand so as to reliably
prevent the welding seam from tearing open at the joint after being welded and,
on the other hand, so as not to exert an excessive, disadvantageous influence,
for example on the electromagnetic properties of the stator core at the joint. The
rule provided for determining the welding seam depth T_s , according to which the
welding seam depth T_s is determined as a function of the yoke height H_{yoke} and a
tolerance value ΔT_s in accordance with the following function

$$T_s = 0.5 \text{ mm} * (H_{yoke}/\text{mm} - 1) \pm \Delta T_s,$$

on the one hand gives the welding seam a sufficient strength to allow it, with a certain yoke height, to absorb the tensile forces occurring in the welding seam, but on the other hand, the welding seam is not too deep so that it does not exert too excessive a negative influence on the magnetic properties at the welding point due to structural changes occurring in the yoke. One of these influences, for example, is the magnitude of undesirable eddy current losses that occur.

Page 3, line 22, to page 4, line 8:

Brief Description of the Drawing Drawings

Exemplary embodiments of a stator and an electric machine according to the present invention are shown in the drawings.

Fig. 1 is a perspective view of shows a stator according to a first exemplary embodiment,

Fig. 2 is a plan view shows an end view of two exemplary embodiments of welding seams in the joined stator core,

Fig. 3 is a graph showing the dependence of depicting the function for the welding seam depth T_s on for different parameters,

Figs. 4 and 5 are plan show end views of two additional exemplary embodiments of welding seams in the joined stator core, and

Fig. 6 is a plan view showing the definition of depiction for determining the yoke height for with a particular embodiment of the yoke with a flute provided at the joint.

Page 4, line 10:

Detailed Description of the Invention

Page 4, lines 12 to 28:

Fig. 1 shows a stator 10 of an electric machine. The stator 10 has an annular stator core 13 comprised of a stator core segment 14. The stator core 13 in this instance is comprised of a stator core segment 14 that is in turn comprised of a multitude of stator laminas 15. As in the prior art, the stator core 13 has inwardly oriented radial grooves 18 into which a stator winding 17 is inserted. This stator 10 is manufactured as described below. Individual, generally strip-shaped stator lamellas 15 are manufactured, which can extend in arcs or straight lines. The individual stator laminas lamellas 15 are stacked or bundled so that one side as to produce a side that is provided with grooves 18 extending all the way through the stack, into which the stator winding 17 is later inserted. After the insertion of the stator winding 17, this produces a subassembly comprised of the stator core 13 and the stator winding 17, which subassembly is then bent in a circular fashion so as to produce a cylindrical cavity in which the grooves 18 end. In order to preserve this state, at least two ends of the stator core 13 that face each other after the circular bending are fixed in place by means of a welding seam 20. Otherwise, the stator 10 would gape open at the joint. It would be hardly possible to install it in a cylindrical bore of a housing.

Page 6, line 21 to 26:

In order to prevent the welding seam 20 from being too brittle and therefore unable to withstand anything more than small loads, the stator core 13 and/or the stator laminas ~~lamellas~~-15 is comprised of a ferrous material that has a carbon content of no more than 0.1% (by mass). Before the welding procedure is executed, the stator winding 17 is mounted onto the stator core 13 at the joint 22 and then they are both bent together in a circular fashion.